

**SECTION 10 14 00
SIGNAGE**

PART 1 – GENERAL

1.01 DESCRIPTION

- A. This section specifies interior signage for room numbers, room name, code required signs, department identification signs and temporary interior signs.

1.02 RELATED WORK

- A. Color Finish: Section 09 06 00, SCHEDULE FOR FINISHES.
- B. Lighted EXIT signs for egress purposes are specified under Division 26, ELECTRICAL.

1.03 MANUFACTURER'S QUALIFICATIONS

- A. Sign manufacturer shall provide evidence that they regularly and presently manufacture signs similar to those specified in this section as one of their principal products.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.
- B. Samples: Sign panels and frames, with letters and symbols, each type. Submit 2 sets. One set of samples will be retained by Contracting Officer's Representative (COR), other returned to Contractor.
 - 1. Sign Panel, 200 mm x 250 mm (8 inches x 10 inches), with letters.
 - 2. Color samples of each color, 150 mm x 150 mm (6 inches x 6 inches). Show anticipated range of color and texture.
 - 3. Sample of typeface, arrow and symbols in a typical full size layout.
- C. Manufacturer's Literature:
 - 1. Showing the methods and procedures proposed for the concealed anchorage of the signage system to each surface type.
 - 2. Manufacturer's printed specifications, anchorage details, installation and maintenance instructions.
- D. Samples: Sign location plan, showing location, type and total number of signs required.
- E. Shop Drawings: Scaled for manufacture and fabrication of sign types. Identify materials, show joints, welds, anchorage, accessory items, mounting and finishes.

1.05 DELIVERY AND STORAGE

- A. Deliver materials to job in manufacturer's original sealed containers with brand name marked thereon. Protect materials from damage.
- B. Package to prevent damage or deterioration during shipment, handling, storage and installation. Maintain protective covering in place and in good repair until removal is necessary.

- C. Deliver signs only when the site and mounting services are ready for installation work to proceed.
- D. Store products in dry condition inside enclosed facilities.

1.06 APPLICABLE PUBLICATIONS

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.
- B. American Society for Testing and Materials (ASTM):
 - B209-10.....Aluminum and Aluminum-Alloy Sheet and Plate
 - B221-08.....Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and tubes
- C. Federal Specifications (Fed Spec):
 - MIL-PRF-8184FPlastic Sheet, Acrylic, Modified
 - MIL-P-46144CPlastic Sheet, Polycarbonate

1.07 MINIMUM SIGN REQUIREMENTS

- A. Permanent Rooms and Spaces:
 - 1. Tactile and Braille Characters, raised minimum 0.793 mm (1/32 in). Characters shall be accompanied by Grade 2 Braille.
 - 2. Type Styles: Characters shall be uppercase, Helvetica Bold Condensed.
 - 3. Character Height: Minimum 16 mm (5/8 in) high, Maximum 50 mm (2 in).
 - 4. Symbols (Pictograms): Equivalent written description shall be placed directly below symbol, outside of symbol's background field. Border dimensions of symbol background shall be minimum 150 mm (6 in) high.
 - 5. Finish and Contrast: Characters and background shall be eggshell, matte or other non-glare finish with adequate contrast with background.
 - 6. Mounting Location and Height: As shown. Mounted on wall adjacent to the latch side of the door and to avoid door swing and protruding objects.

1.08 COLORS AND FINISHES

- A. Color and Finishes: See Section 09 06 00, COLOR FOR FINISHES.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Signs of type, size and design shown on the drawings and as specified.
- B. Signs complete with lettering, framing and related components for a complete installation.
- C. Provide graphics items as completed units produced by a single manufacturer, including necessary mounting accessories, fittings and fastenings.
- D. Do not scale drawings for dimensions. Contractor to verify and be responsible for all dimensions and conditions shown by these drawings. COR to be notified of any discrepancy in drawing, in field directions or conditions, and/or of any changes required for all such construction details.

- E. The Sign Contractor, by commencing work of this section, assumes overall responsibility, as part of his warranty of work, to assure that assemblies, components and parts shown or required within the work of the section, comply with the Contract Documents. The Contractor shall further warrant: That all components, specified or required to satisfactorily complete the installation are compatible with each other and with conditions of installations.

2.02 PRODUCTS

- A. Aluminum:
1. Sheet and Plate: ASTM B209.
 2. Extrusions and Tubing: ASTM B221
- B. Cast Acrylic Sheet: MIL-PRF-8184F; Type II, class 1, Water white non-glare optically clear. Matt finish water white clear acrylic shall not be acceptable.

2.03 SIGN STANDARDS

- A. Typography:
1. Type Style: Helvetica Bold Condensed. Initial caps or all caps as shown on Drawings.
 2. Letter spacing: See graphic standards on drawings.
 3. All text and symbols to be provided in size, colors, typefaces and letter spacing shown. Text shall be a true, clean, accurate reproduction of typeface(s) shown. Text shown in drawings are for layout purposes only; final text for signs shall be in accordance with approved shop drawings and COR.
- B. Project Colors and Finishes: See Section 09 06 00, SCHEDULE FOR FINISHES.

2.04 SIGN TYPES

- A. Sign Types SG-1, SG-2 and SG-3:
1. Tactile sign is to be made from a material that provides for letters, numbers and Braille to be integral with acrylic sign plaque material. Do not apply letters, numbers and Braille with adhesive.
 - a. Numbers, letters and Braille to be raised 0.793 mm (.0312 inches) from the background surface. The draft of the letters, numbers and Braille to be tapered, vertical and clean.
 - b. Braille dots are to conform with standard dimensions for literary Braille;
 - i. Dot base diameter: 1.5 mm (.059 inches).
 - ii. Inter-dot spacing: 2.3 mm (.090 inches).
 - iii. Horizontal separation between cells: 6.0 mm (.241 inches).
 - iv. Vertical separation between cells: 10.0 mm (.395 inches).
 2. Room name text to be first surface silk-screened copy.
 3. Provide accent aluminum plate as shown on Drawings.
 4. Paint acrylic sign panels on surfaces as shown on Drawings.
 5. Provide black acrylic backer panel.
 6. Complete sign is to have an eggshell finish (11 to 19 degree on a 60 degree glossmeter).
 7. For sign type SG-1, provide insert sign made from acrylic panels and spacers, paint acrylic panels as shown on Drawings.
 8. For sign type SG-2, provide slider frame with slider panel as shown on Drawings.
 9. Refer to Drawings for exact material and dimension specifications.

- B. Sign Type SG-4 (NOT USED)
- C. Sign Type SG-5:
 - 1. Tactile sign is to be made from a material that provides for letters, numbers and Braille to be integral with acrylic sign plaque material. Do not apply letters, numbers and Braille with adhesive.
 - a. Numbers, letters and Braille to be raised 0.793 mm (.0312 inches) from the background surface. The draft of the letters, numbers and Braille to be tapered, vertical and clean.
 - b. Braille dots are to conform with standard dimensions for literary Braille;
 - i. Dot base diameter: 1.5 mm (.059 inches).
 - ii. Inter-dot spacing: 2.3 mm (.090 inches).
 - iii. Horizontal separation between cells: 6.0 mm (.241 inches).
 - iv. Vertical separation between cells: 10.0 mm (.395 inches).
 - 2. Provide accent aluminum plate as shown on Drawings.
 - 3. Paint acrylic sign panels on surfaces as shown on Drawings.
 - 4. Provide black acrylic backer panel.
 - 5. Complete sign is to have an eggshell finish (11 to 19 degree on a 60 degree glossmeter).
 - 6. Refer to Drawings for exact material and dimension specifications.
- D. Sign Type SG-6:
 - 1. Department name text to be first surface silk-screened copy.
 - 2. Provide aluminum angle bracket to receive acrylic sign panels and for wall mounting.
 - 3. Paint acrylic sign panels on surfaces as shown on Drawings.
 - 4. Complete sign is to have an eggshell finish (11 to 19 degree on a 60 degree glossmeter).
 - 5. Refer to Drawings for exact material and dimension specifications.

2.05 FABRICATION

- A. Design components to allow for expansion and contraction for a minimum material temperature range of 56 °C (100 °F), without causing buckling, excessive opening of joints or over stressing of adhesives, welds and fasteners.
- B. Form work to required shapes and sizes, with true curve lines and angles. Provide necessary rebates, lugs and brackets for assembly of units. Use concealed fasteners whenever and wherever possible.
- C. Shop fabricate so far as practicable. Joints fastened flush to conceal reinforcement, or welded where thickness or section permits.
- D. Contact surfaces of connected members be true. Assembled so joints will be tight and practically unnoticeable, without use of filling compound.
- E. Signs shall have fine, even texture and be flat and sound. Lines and miters sharp, arises unbroken, profiles accurate and ornament true to pattern. Plane surfaces be smooth flat and without oil-canning, free of rack and twist. Maximum variation from plane of surface plus or minus 0.3 mm (0.015 inches). Restore texture to filed or cut areas.
- F. Level or straighten wrought work. Members shall have sharp lines and angles and smooth surfaces.

- G. Extruded members to be free from extrusion marks. Square turns and corners sharp, curves true.
- H. Drill holes for bolts and screws. Conceal fastenings where possible. Exposed ends and edges mill smooth, with corners slightly rounded. Form joints exposed to weather to exclude water.
- I. Finish hollow signs with matching material on all faces, tops, bottoms and ends. Edge joints tightly mitered to give appearance of solid material.
- J. All painted surfaces properly primed. Finish coating of paint to have complete coverage with no light or thin applications allowing substrate or primer to show. Finished surface smooth, free of scratches, gouges, drips, bubbles, thickness variations, foreign matter and other imperfections.
- K. Movable parts, including hardware, are to be cleaned and adjusted to operate as designed without binding or deformation of members. Doors and covers centered in opening or frame. All contact surfaces fit tight and even without forcing or warping components.
- L. Pre-assemble items in shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for re-assembly and coordinated installation.
- M. No signs are to be manufactured until submittal review has been completed by the COR and forwarded to contractor.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Protect products against damage during field handling and installation. Protect adjacent existing and newly placed construction, landscaping and finishes as necessary to prevent damage during installation. Paint and touch up any exposed fasteners and connecting hardware to match color and finish of surrounding surface.
- B. Mount signs in proper alignment, level and plumb according to the sign location plan and the dimensions given on elevation and sign location drawings. Where otherwise not dimensioned, signs shall be installed where best suited to provide a consistent appearance throughout the project. When exact position, angle, height or location is in doubt, contact COR for clarification.
- C. Contractor shall be responsible for all signs that are damaged, lost or stolen while materials are on the job site and up until the completion and final acceptance of the job.
- D. Remove or correct signs or installation work where COR determines as unsafe or as an unsafe condition.
- E. At completion of sign installation, clean exposed sign surfaces. Clean and repair any adjoining surfaces that became soiled or damaged as a result of installation of signs.
- F. Locate signs as shown and as directed by COR.
- G. Certain signs may be installed on glass. A blank glass back up is required to be placed on opposite side of glass exactly behind sign being installed. This blank glass back up is to be the same size as sign being installed.

- H. Contractor will be responsible for verifying that behind each sign location there are no utility lines that will be affected by installation of signs. Any damage during installation of signs to utilities will be the sole responsibility of the Contractor to correct and repair.
- I. Furnish inserts and anchoring devices which must be set in concrete or other material for installation of signs. Provide setting drawings, templates, instructions and directions for installation of anchorage devices which may involve other trades.

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